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REVIEW

The importance of aquatic recreation areas in urban living and their contribution on health.

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ABSTRACT

The rapid increase in population, the dizzying developments in science and technology, cause human life more intense and stressful. Daily activities have begun to force and to tire people up more. Besides, adverse environmental effects also affect the physical and psychological health of person. A very important part of the population lives in big buildings in cities and this lifestyle people removes especially children from natural life. For today's people, especially the leisure time outside the working time, full, happy, satisfying, rest at the same time, having fun and learning activities is important in reducing stress. The meaning of recreation is the vitality and renewal of human beings both in terms of bodily and spiritual. One of the recreational activities known since the first ages is the close monitoring of aquatic life. Aquatic life presents a relaxing visuality and information about itself to human beings. It is obvious that aquariums will be a versatile decoration tool for living spaces as well as restful effects when considering the above reasons and will also affect the quality of life positively by reducing stress. The lack of nature and nature history museums in our cities may be seen as a suitable motivation for the dissemination of the aquatic life-based recreation of the decrease in the possibility of healthy contacts that should be found between man and nature. Aquariums that will be installed in shopping centers, schools, and other living areas in contemporary cities today, especially in residential buildings, will allow people to contact nature from another perspective. The recreational areas where the aquatic life is observed will give people the opportunity to relax in the natural life.

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Introduction

The experience and relationship between human and aquatic environments is extremely complicated and is entirely emotionally charged. The meaning of recreation is the vitality and renewal of human beings both in terms of bodily and spiritual. There is a great deal of literature showing that discover the natural environment and connect with nature is

generally useful to health and wellbeing. In addition, the majority of reported benefits relate to mental health and wellbeing. Other results include factors such as stress reduction, improving concentration skills, alleviating depression and improving self-esteem (Maller et al., 2006; Prosser et al., 2008). Many people prefer natural environments where they can relax and recover psychologically when they have stress

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and mental fatigue. Documents that indicate that human, animal, and nature interactions people feel better about themselves, that they are happy, and that they have health-enhancing effects, have become the focus of many researches (Filan and Llewellyn-Jones, 2006). Nature and animals have been used since ancient Greeks to improve the emotional and functional status of people (Riede, 1987). One of the recreational activities known since the first ages is the close monitoring of aquatic life. City aquariums exhibit wildlife and have a special link with nature. They offer an extraordinary opportunity to show the miracle of life to many cities inhabitants. Also city aquariums can contribute to the preservation of education and living spaces (Miller et al., 2004). In some studies, positive effects of fish aquariums on human health have been identified (Cole and Gawlinski, 2000). Fish aquariums in the home or in the therapeutic environment are a common way of introduce of animals or "nature". Participants who had the opportunity to observe a fish aquarium under laboratory conditions experienced significant reductions in their blood pressure (Edwards and Beck, 2002; Barker et al., 2003a).

In some other researches, many animal species such as turtles, chicks, rabbits, birds, pets, fishes (aquariums), dogs and horses have been used for therapy (Macauley, 2006). There are also studies to reduce the level of anxiety and stress in therapies made by interacting with different animals (Wilson, 1991; Barker and Dawson, 1998). However, the use of different animal species in therapy is a limiting factor for allergy patients. Fishes and aquariums would be good choices for people those allergic to most animals (Barba, 1995).

Current research on the potential for stress reduction of aquariums also reports that the biological diversity of the aquarium has a significant impact on the physiological and psychological response of humans (Cracknell et al., 2012). Monitoring of aquatic environments potentially provides a learning-centered experience. It also provides a learning environment to explore, examine, choose, establish personal connections, develop and control your own understanding (Paris, 1997; Adelman et al., 2000).

Monitoring aquatic life presents a relaxing visuality and information about itself to human beings. Monitoring aquatic life also affect the quality of life positively by reducing stress. It is purposed that people' to look at nature from a different perspective through the aquatic recreation areas that will be installed especially in houses, shopping centers, schools and other living areas in modern cities.

Aquatic Environment and Well-Being

It is obvious that aquariums will be a versatile decoration tool for living spaces also it will also affect the quality of life positively by reducing stress. Because of the strong positive responses to the water, the design of blue areas is very important for positive or valuable total quality and good ecosystems. Aquatic natural landscape has three essential components. These are water, vegetation and fish varieties (Steinwender et al., 2008). Aquatic environmental enrichment provides resources that facilitate psychological well-being by facilitating typical behaviours of species or abruptly removing abnormal behaviour (Mellen and Sevenich MacPhee, 2001). A

peaceful sense of place about the blue area, can positively affect to wellbeing and other emotional feelings. Aquatic area is recognized as a mysterious mirror by presenting a picture that is not as clear as normal mirror (Burmil et al., 1999; Nasar and Li, 2004; Wyles et al., 2013). Aquatic areas, on people provide perception, emotional, restoration and recreational benefits, as well as direct health benefits. Nevertheless, scenery ecology and landscape are an important feature in terms of emotional connection (Purcell et al., 2001; Berto, 2005; Han, 2007; Kweon et al., 2008). Watching to the blue aquatic environment may have calming and stress-relieving effects on humans. Also, it is reported that such benefits may be higher in areas with more species diversity. Longer monitoring of the aquatic area with increased biological diversity results in a further increase in the personally reported mental wellbeing with decline in heart rate (Cracknell et al., 2016). The aquatic environments or blue areas have positive effects on human health, it is indicated that those living in such environments tend to be healthier and longer life (De Vries et al., 2003). People who watched aquariums in their free time were compared to people who visited museums or art galleries. According to these study, people that watched the aquatic environments in the aquariums during their leisure time have found to aquariums more enjoyable, they also found significant differences in their perceptions about themselves (Packer and Ballantyne, 2010). Katcher et al. (1984) have informed that watching in an aquarium to fishes can reduce anxiety in medical and dental waiting rooms. Other than this, Riddick (1985) examined the effects of introducing new hobby fish aquariums on the elderly. He reported that compared to the other two groups that did not receive this intervention, the aquarium group was significantly positive changes that overall leisure satisfaction, relaxation states and diastolic blood pressure.

According to Dogu et al. (2011), aquariums have included methods and practices to have ensure that experience for guests' pleasure as long as the animals are safe and comfortable. They create an area where guests can touch and interact with real aquatic animals. Furthermore, aquariums are both used as a form of recreation and training for children and families, besides it is an important method of increasing awareness of information about aquatic species. Hence, there is a lot of evidence for the benefits that humans monitoring of aquatic environment, but more research is needed on this subject.

Discussion

It is quite important that people, especially children, have contact with nature for mental, emotional and social well-being. Contacting with nature, may have many benefits including self-respect, better perception and increased self-confidence. Spending more time in activities that involve connecting with nature in the school can be a very important tool to support the development of children's mental, emotional and social well-being (Maller, 2009). Recently, humans beginning to appreciate benefits that come from the nature and biodiversity on human health. Sandifer et al. (2015) assessed the relationship between human health and nature and biodiversity and produced a comprehensive list of reported

health effects. They found strong evidences linking biodiversity with production of ecosystem services between exposure to nature and human health. Health and well-being can be defined in terms of perception, preference, landscape design, emotion, restoration and recreation, which are directly related to the aquatic recreation areas. Aquatic life inspires and motivates people in cities to establish a more harmonious and sustainable relationship with the natural World (Rabb and Saunders, 2005). In addition, the direct health benefits of aquatic recreation areas have been noted in many studies. Völker and Kistemann (2011) should support researchers and practitioners analysing health impacts in the blue space.

In relation to the subject Churchill et al. (1999), Friedmann and Son (2009) have identified that animal-based therapy increases emotional well-being, reduces loneliness, and reduces anxiety and physical stress reactions. Also, Tsai et al. (2010) examined that Animal Assisted Treatment (AAT) the effects on cardiovascular response, situational anxiety and medical fear of hospitalized children. They reported that AAT can reduce physiological stimulation in hospitalized children and may help them cope better at the hospital for this reason. A study of brain disease, followed a more specific approach and explored whether the presence of fish aquariums affected the feeding of Alzheimer's patients (AD). They studied 62 individuals with AD who lived in a private nursing home. Baseline nutritional data were obtained after a two-week treatment period in which aquariums were watched. Then they collect data every day for 6 weeks. They said that, according to the results, with AD persons' nutritional intake increased markedly when aquariums were introduced. Weight also increased significantly continued to increase during the six-week observation period. The authors have found that the presence of fish aquariums enriches the habitats and thus improves the mood of the residents and increases their food supply (Edwards and Beck, 2002). One of the first uses of fish aquariums for older adults was a study administered in communal subsidized housing. People who accept the same services but who had an aquarium and did not have an aquarium were compared. In their leisure time, residents with a fish aquarium were found to increase their overall satisfaction levels and were more comfortable (Wells, 2009).

Barker et al. (2003b) investigated the pre-treatment effect of the aquarium in anxiety, fear, frustration and depression patients treated with electroconvulsive therapy. Forty-two patients who underwent to aquarium and non-aquarium rooms were directed to ECT. Depression, anxiety, fear and frustration, heart rate and blood pressure measurements of the patients were done. They found that patients who passed through the room with the aquarium had 12% less anxiety. Kidd and Kidd (1999) found that 70% of aquarium owners identified their fish as relaxing and stress decreasing. In this field, it is suggested that existing researches indeed make it available in health care centers because of the potentially relaxing and calming properties of fish aquariums. DeSchraver and Riddick (1990) have investigated the effect of watching the aquarium on the stress of elderly. A placebo videotape was shown to members of the control group while members of the experiment group were watching a fish aquarium or an aquatic environment video cassette. Three separate treatment

sessions of eight minutes were organized repeatedly one week. They said that aquarium observers tend to have a slower pulse rate and a decrease in muscle tension and an increase in skin temperature.

Conclusion

The lack of nature and nature history museums in our cities may be seen as a suitable motivation for the dissemination of the aquatic life-based recreation of the decrease in the possibility of healthy contacts that should be found between man and nature. Aquariums that will be installed in shopping centers, schools, and other living areas in contemporary cities today, especially in residential buildings, will allow people to contact nature from another perspective. The recreational areas where the aquatic life is observed will give people the opportunity to relax in the natural life.

Conflict of Interest

The authors declare that there is no conflict of interest.

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